AMENDMENT IN THE SPECIFICATION

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An apparatus (MicroWater^{TM} distributed by Optimum Health Institute, San Mateo, Cal.) has been disclosed. The device produces two kinds of water with different redox potentials, one with a high reduction potential (referred to as "alkaline MicroWater") and one with a high oxidation potential (referred to as "acid MicroWater").

The acid Microwater has a been found to have commercially viable bactericidal properties when used in the lowest pH range (2.65) attainable (reported) for this solution. It is believed that the active molecule is the "hydronium" ion having the structure:

H^+

H-O-H

However, the production of Microwater having a pH less than 2.5 is not known. It follows that the use of Microwater as a disinfectant on the skin where the pH is less than 2.5, is also not known.

Two excellent references on the subject of free radicals are found in the books:

"Excited States and Free Radicals in Biology and Medicine" by Bensassoon and Land (Oxford Science Publications

"The Oxygen Paradox" by Davies and Ursini (CLEEUP University Press.)

The desire to express germicidal activity of various agents quantitatively has led to the development of numerous procedures, most of which are based on a phenol coefficient method developed by Rideal and Walker in 1906. The method involves culturing two batches of selected microbes for a period of time, one batch is disposed in a "standard" bactericide and the other batch is disposed in the "test" bactericide. A quantitative expression of effectiveness of the test bactericide may be expressed as a percent of the number of bacteria killed by test bactericide compared to the standard bactericide. Standard tests are outlined under ASTM guidelines.